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METHODS OF IDENTIFYING AN ~~ADP-GLUCOSE RECEPTOR~~ ADP-GLUCOSE RECEPTOR LIGAND, AGONIST OR ANTAGONIST

This application claims the benefit of U.S. Provisional Application No. 60/234,025, filed September 20, 2000, and is incorporated herein by reference.

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BACKGROUND OF THE INVENTION

The present invention relates generally to the field of G-protein coupled receptors and, more specifically, to therapeutic and diagnostic compositions and methods relating to ADP-glucose receptor.

G-protein coupled receptors (GPCRs) comprise a large and growing family of integral membrane proteins which transduce extracellular signals into cellular responses. The natural agonists of different GPCRs range from peptide and non-peptide neurotransmitters, hormones and growth factors, to lipids, nucleoside-sugars, amino acids, light and odorants.

G-protein coupled receptors are involved in a variety of critical biological functions, and have proven to be important pharmacological targets. It is estimated that over 50% of current drugs are targeted towards GPCRs, and represent about a quarter of the 100 top-selling drugs worldwide. G-protein coupled receptors are also linked to a large number of hereditary diseases.

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Thus, there exists a need to identify novel G-protein coupled receptors and their ligands, to identify the physiological function of such receptors, and to develop methods of screening for therapeutic